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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,913	03/12/2004	Donald G. Newberg	CM06187H	8294
22917	7590	08/25/2006	EXAMINER	
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			RYMAN, DANIEL J	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/799,913	Applicant(s) NEWBERG ET AL.	
	Examiner Daniel J. Ryman	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,9,10 and 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5,9,10 and 13-23 is/are allowed.
- 6) ☒ Claim(s) 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8/18/2006 have been fully considered but they are not persuasive. On page 14 of the Response, Applicant asserts that "each burst in a plurality of bursts includes a field and this single field is one of a synchronization field or a signaling field, *but not both*." Examiner, respectfully, disagrees. Claim 24 recites: "wherein the field is one of a synchronization field and a signaling field." Thus, while the claim requires that the field has to be one of a synchronization field and a signaling field, the claim does not forbid the field from being both. Simply, when a field is both a synchronization field and a signaling field, the field is one of a synchronization field and a signaling field, as required by claim 24.
2. On page 15 of the Response, Applicant further asserts that "the overhead disclosed in Smith, et al. is not a single field but is 'information' (col. 3, lines 3-6) that may be included in a plurality of fields, such as a Beam Setting field 108, a Guard Time field 110 and a Preamble field 114 (Fig. 2)." However, while Applicant implicitly asserts that the term "field" should be given a narrow interpretation, Applicant has failed to provide such a narrow definition in the specification. Since Applicant has not defined "field," Examiner is required to give "field" as broad a definition as is reasonable. MPEP § 2111. Webster's Collegiate Dictionary defines "field" as "a particular area in which the same type of information is regularly recorded." Here, Examiner has interpreted the overhead as a single "field" since the overhead "field" carries the same type of information from frame to frame. Under this interpretation, the Beam Settling information 108, the Guard Time information 110, and the Preamble information 114 are sub-fields of the overhead field. As such, Examiner maintains that the overhead is a single field.

3. Additionally on page 15 of the Response, Applicant asserts that since some time slots include no overhead information, Smith fails to disclose that “each *burst in the plurality* comprises a field that is one of either a synchronization field or a signaling field.” However, as Applicant notes on page 15, “[t]he invention disclosed in Smith, et al. provides for the elimination of some or all of the overhead information in some of a plurality of time slots . . . (col. 2, lines 52-61).” Thus, while Smith discloses that in some instances the overhead information will be eliminated from some of the time slots, Smith also discloses eliminating only a portion of the overhead information in some of the time slots. In the latter case, i.e. when only a portion of the overhead information is eliminated from some of the time slots, each time slot will carry overhead information but some slots will carry more overhead information than others. As such, Examiner maintains that Smith discloses having each burst in the plurality of bursts comprise a field that is one of either a synchronization field or a signaling field.”

4. On page 16, Applicant asserts that “Examiner does not point to where in Smith, et al. is disclosed that this single field is ‘in a fixed location’ in the time slot.” While Examiner did not expressly point out in the previous Office Action where Smith discloses that the single field is “in a fixed location,” Examiner did direct Applicant’s attention to Fig. 2 of Smith with respect to other limitations. In Fig. 2, Smith clearly shows that the overhead is always located at the front of the slot. As such, Examiner maintains that Smith discloses that the field is “in a fixed location” in the time slot.

5. Further, on page 16 of the Response, Applicant asserts that Cantoni fails to disclose “that the indicator that identifies payload is defined in a single field that could be embodied as a synchronization field in some bursts and a signaling field in other bursts within a plurality of

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bursts.” In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Examiner relies upon the other references to teach the limitations missing from Cantoni. As such, Examiner maintains that the combination of Smith, Oliver and Cantoni teaches all the limitations of the claim.

6. Additionally on page 16 of the Response, Applicant asserts that “Examiner fails to point to where in Cantoni (or any other reference) the limitations that the indicator ‘or b) identifies a second type of information’ are disclosed.” However, Examiner asserts that a teaching showing this feature is not required in the rejection. Claim 24 recites: “defining an indicator to identify that payload in the burst either a) begins a new packet, completes a packet, or signals a segment of a packet that does not begin or complete a packet or b) identifies a second type of information.” Thus, the limitation of claim 24 is met when there is an indicator that always identifies that the payload in the burst a) begins a new packet, completes a packet, or signals a segment of a packet that does not begin or complete a packet since, in this instance, the indicator never has to indicate that the payload identifies a second type of information. As such, the limitations of claim 24 do not require a showing that the indicator indicates element (b) as long as the indicator always indicates element (a).

7. In an alternative interpretation, if the presence of the indicator identifies that the payload in the burst begins a new packet, completes a packet, or signals a segment of a packet that does not begin or complete a packet, then the absence of such an indicator must indicate that the payload is being used for some other purpose. In this manner, the indicator indicates that the

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payload contains element (a) through its presence and indicates that the payload contains element (b) through its absence. Under either of the above interpretations, Examiner maintains that the prior art discloses an indicator that indicates that the payload in the burst either contains element (a) or element (b).

8. In view of the foregoing, Examiner maintains that the cited prior art renders claim 24 obvious.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (USPN 6,714,557), of record, in view of Oliver (USPN 6,292,484), of record, in further view of Cantoni et al. (USPN RE37,494), of record.

11. Regarding claim 24, Smith discloses in a wireless communication system with an air interface comprising a plurality of bursts (col. 1, lines 31-33), a method comprising the step of defining a plurality of bursts, wherein each burst (time slot) comprises a field (overhead) embedded within the burst (col. 2, lines 52-col. 3, line 13); and wherein the field is one taken from the group of a synchronization field (preamble) and a signaling field (other fields in overhead) (col. 2, lines 52-col. 3, line 13) wherein the claim only requires that each burst have at least one field and that this one field be a synchronization field or a signaling field such that the “field” in one burst need only be a preamble *or* a signaling field; and wherein, when the field is a

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synchronization field, defining a position of at least one subsequent burst comprising the signaling field (col. 5, lines 16-21);

Smith does not expressly disclose that, when the field is a synchronization field, defining a position of at least one subsequent burst comprising the synchronization field; however, Smith does disclose that the synchronization field can be eliminated for a predetermined number of slots (col. 4, line 48-col. 5, line 7). Oliver teaches, in a TDMA communication system, using an offset to indicate the position of a subsequent embedded field (col. 3, lines 40-62) in order to allow the receiver to correctly ascertain the positions of fields in the data stream (col. 4, lines 22-30). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to define a position of at least one subsequent burst comprising the synchronization field in order to allow the receiver to correctly ascertain the position of the synchronization field when the synchronization field has been eliminated for a predetermined number of slots.

Smith in view of Oliver does not expressly disclose that, when the field is a signaling field, defining an indicator in a framing portion of the signaling field to identify that payload in the burst is taken from a group of (a) begins a new packet, (b) completes a packet, and (c) does not begin or complete a packet. Cantoni discloses, in a TDMA communication system, defining an indicator to identify that payload in the burst is taken from a group of (a) begins a new packet, (b) completes a packet, or (c) does not begin or complete a packet (col. 3, lines 65-66 and col. 4, line 59-col. 5, line 9) in order to allow a packet that is larger than the size of the time slot to be transmitted and correctly received (col. 1, lines 53-60 and col. 2, lines 40-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to define, when the field is a signaling field, an indicator in a framing portion of the signaling field to identify

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that payload in the burst is taken from a group of (a) begins a new packet, (b) completes a packet, and (c) does not begin or complete a packet in order to allow a packet that is larger than the size of the time slot to be transmitted and correctly received, where the information is “framing information” such that it is in a “framing portion of the signaling field.”

Allowable Subject Matter

12. Claims 1-5 and 10 are allowed. The prior art does not disclose or fairly suggest having the field be a synchronization field in a first burst in a superframe and the field be a signaling field in the remaining bursts in the superframe.

13. Claims 9 and 23 are allowed. The prior art does not disclose or fairly suggest having the field be a synchronization field in a first burst in a superframe and the field be a signaling field in the remaining bursts in the superframe.

14. Claims 13-22 are allowed. The prior art does not disclose or fairly suggest signaling a mode for the system using a unique synchronization pattern.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel J Ryman
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